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Amery No 5

THE
MEXICAN NATIONAL RAILWAY.



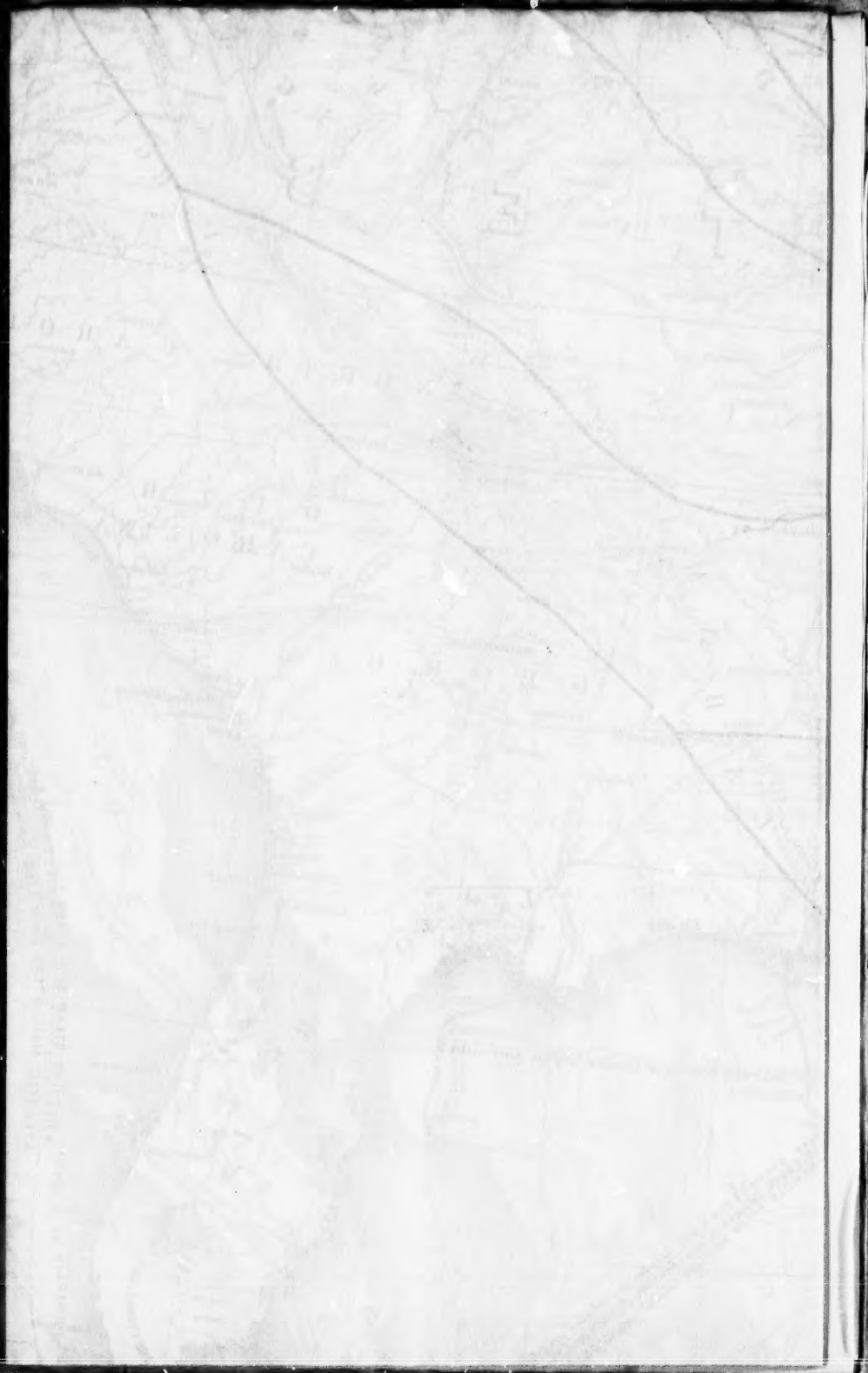
(Palmer-Sullivan Concession.)

1881.

Séminaire de Québec







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MAP OF
THE MEXICAN NATIONAL RAILWAY
(PALMER SULLIVAN CONCESSION)
AND THE
DENVER & RIO GRANDE RAILWAY
SHOWING PROPOSED EXTENSIONS & CONNECTIONS
ALSO THE RELATIVE POSITION OF
MEXICO TO THE UNITED STATES

1881







THE MEXICAN NATIONAL RAILWAY.

Mexico is a confederated republic of twenty-seven (27) states, one (1) territory (Lower California) and one (1) federal district—that of Mexico. Its form of government, National and State, is fashioned after the general plan of that of the United States of America, which has proved, for this Continent, to be such a fortunate foundation for social and political stability.

The Republic of Mexico comprehends a territorial area of 741,800 square miles—an area greater than that of the combined territories of France, Spain, the entire German Empire, Great Britain and Ireland.

Its population in 1876 was 9,500,000, and is now something greater. It is, therefore, a little more populous than the two kingdoms of Belgium and Holland. Or, to seek another European illustration, it is nearly equal to the combined populations of Denmark, Sweden, Norway and Bulgaria.

It is this magnificent domain (as yet, substantially, virgin as a railway field) which The Mexican National Railway is entering from the United States, and simultaneously building northward and westward from the central capital of Mexico, and at Manzanillo eastward from the Pacific Coast.

The investor, about to place his capital in a railway enterprise in a foreign country, will naturally consider the political, physical and commercial features of the field.

With the politics of Mexico, or of the United States, or with the political relations of the two countries, the Mexican National Railway has nothing to do. It suffices to call attention to the fact that the government of Mexico is that form which has proved best and safest for the rapid development and social stability of this continent.

The old popular impression that Mexico is a land of exceptionally chronic social disturbance and political revolutions is rapidly clearing away, as the life and resources of the country become better known.

The public mind of the United States has already become well disabused of this illusion, and Europe will soon find it as baseless as many of its familiar beliefs not long ago of the United States.

There is far less social or political disturbance to-day in Mexico than there is at this moment in Ireland or in Russia, and less unrest and fear of future danger. The last Presidential election in Mexico was as peaceful as any in the United States or in France.

Mexico's physical configuration and her topographical relation to the whole surface of the civilized and trading portions of the globe, make her the most inviting field of the world at this moment for railway enterprises and investment.

It is an immense country; more than half as large as non-Russian Europe, without a navigable stream, or one that ever can be made navigable for any practical distance. The peculiar physical configuration (an immense central upland plateau, sloping down by sharp descents—almost escarpments—to the lowlands or *tierras calientes* along the coast, where ripen the tropical harvests) forever precludes the future construction of any canal system. It is, and must remain, without water transportation, and dependent for all its vast inter-state and foreign import and export trade on railway carriage.

Further, Mexico is on the direct water highway between Europe and Asia. Humboldt, eighty years ago, called her "el puente del comercio del mundo" (the bridge of the commerce of the world). This commanding position can never be taken away from her, and will grow in strength as the world grows in wealth and peace and progress.

This American continent, dividing the Atlantic and Pacific Oceans, bars the way to the trade currents of Europe and Asia. Right through the City of Mexico lies one of the best trans-continental railway lines that can be built or operated with safety to life and health across it. And this line is one of the great vertebral cross-roads which form the structural basis of the Mexican National Railway system.

THE RESOURCES OF MEXICO.

It is the local material resources of Mexico, however, which constitute the strongest inducement and the most solid foundation for present investment.

Mexico is a country of nearly ten millions of people, with large cities

and roads and universities and cathedrals and developed mines and teeming harvests, and all the resources and conditions of organized civilization. She is in close proximity and political sympathy with the fifty millions more of the people of the United States, the most prosperous and active and wealth producing and consuming people on the face of the globe at this time. With this nation she has a coterminous boundary of 1,860 miles, about to be pierced at several points with railways. Practical experiment has demonstrated in the United States that railroads built into an uninhabited territory will create habitation and business immediately, even if that territory is held by hostile, savage tribes, and the roads are built literally under fire and operated at the outset under military guard. Practical experiment has demonstrated further that such roads will sustain themselves across long stretches of comparatively desert lands, if mines or irrigable soil (the conditions of future wealth) be found at their termini.

But this latest of American railroads (The Mexican National Railway) is building from a populous capital to great provincial cities, and to ports on the highway of the world's trade, and through settled states laden with the harvests of both the temperate and tropical zones.

The City of Mexico (280,000) is larger in population than Rome (244,484), or Copenhagen (205,000), or Lisbon (253,000).

San Luis Potosi (60,000) is about as large as Mayence (58,000); Puebla (75,000) is about equal to Havre (75,000); Leon (150,000) is larger than Antwerp (125,000), or Genoa (130,000), or Venice (128,000). Siloa (38,000) is equal to Metz (38,000); Guanajuato (63,400) is larger than Verona (60,000); Guadalajara (74,000) is the counterpart of Toulon (70,000); Toluca (12,000) is near Luxembourg (14,000); Colima (31,700) equals Freiborg (32,000); Zapotlan (22,000) is larger than Macon (16,000); Zacatecas (26,000) nearly equal to Coblenz (29,000), Morelia (25,000) is larger than Heidelberg or Treves (each 22,000).

On the route from the City of Mexico to Manzanillo alone, there are twenty-three important towns, aggregating (including the City of Mexico) a population of 744,000. The little villages would swell it to nearly a million. Nearly one-half of the entire population of Mexico is tributary to this inter-oceanic line. During the freighting season six hundred donkeys and mules leave Manzanillo every day, laden with goods and merchandise for the interior. This represents only the Pacific trade of one port. A graphic writer (an army officer during our war) who passed over this route in 1872, declared that the daily scene on the road recalled to his mind "the transportation of an army on the march."

The colossal trans-Missouri system of the United States has developed itself within fifteen years, out of an effort to reach across uninhabited plains about half a million of adventurers and unsettled miners scattered on what was then an unknown and far-off coast—California, once an outlying Mexican state. The Mexican National Railway is pushing out from their own central capital for the trade and travel of 10,000,000 of people living in comparatively close districts, and to place them in direct communication with 50,000,000 more of neighbors and friends.

These 10,000,000 of people, with their cities and states, and all the wants of civilized life, inhabit a country of unparalleled natural resources and wealth. Their catalogue reads like a modern material Arabian Nights tale of romance. "This vast empire, under a careful cultivation, would alone produce all that commerce collects together from the rest of the globe."—*Humboldt*.

MINERAL RESOURCES.

Mexico is best known commercially by her silver, which, up to this time, has been her chief export; because, by reason of its great value in a small bulk, it has been the only one of her productions which could bear the cost of transportation by mule and human carriage. Within her limits are found the greatest known silver deposits of the world. "Guanajuato, Real del Monte, Zacatecas, San Luis Potosi and other of her mining localities have yielded, within the range of statistical data, over three thousand millions of dollars." Her silver mines, indifferently worked from the time of Cortez, are far richer than the gold and silver ranges of the United States, which have made the millionaire of California and Nevada, and created prosperous states like Colorado. "More than five-ninths of the \$9,700,000,000 in the world have come from Mexico."

But this is her least source of wealth. Hon. John W. Foster, Minister Plenipotentiary of the United States, in a recent official paper declares that Mexico, in her coffee alone, "possesses a far greater source of wealth and prosperity than in the products of silver."

AGRICULTURAL RESOURCES.

However glittering and desirable and substantial the golden harvest of the precious metals, the agricultural products of the soil have, in the end, always been found to be the most lucrative, as well as the healthiest,

form of national wealth, and that most conducive to the general prosperity of the people.

It is in this direction that Mexico has been expressly favored by Providence.*

Her physical conformation (a great plateau in the centre, 6,000 to 8,000 feet above the sea, with its periphery of lowland coast on either side) gives her a temperate and tropical climate in the same range of latitude, and, consequently, also the harvests of the temperate and of the tropical zones almost within touch, and absolutely in sight of each other. In this she has advantages and a wealth beyond that of the United States.

Mexico produces abundantly the corn and wheat and barley and fruits; the pines and oaks and other timber; the hides and wool; horses, mules, hogs and cattle; the sugar and rice, figs and oranges and cotton and tobacco, rum and molasses, and other semi-tropical products of the United States; but she goes farther, and adds whole classes of purely tropical products, *which are her monopoly*, as against the United States and Europe. Coffee, indigo, cocoa-nuts, cocoa, caoutchouc, the india-rubber tree, vanilla, Chili, cochineal, mahogany, rosewood, ebony, lemons, limes, pine-apples, jalap (Xalapa), drugs, salts, vegetable waxes, medicinal gums, cinchona bark, aniseed, spices, mexal, pulque, agave (the fibre of which, many manufacturers claim, will produce a revolution in the paper trade), sisal hemp, manilla, madder, ramie, hennequen, and many kinds of vegetable dyes, nuts, oils of commerce and for the table, fine cabinet woods, and small tropical fruits almost unknown to us. In brief, as a graphic writer sums up, the agricultural products of Mexico are "every variety known to the temperate, as well as to the torrid zone."†

We return to the mineral wealth of Mexico for a moment, to announce some recent and gratifying discoveries on the line of the Mexican National roads. The mineral treasures of Mexico are fabulous. "There is not a mineral known, except cryolite, that is not found within her borders." Copper, gypsum, iron, zinc, plumbago, tin, sulphur, lead, quicksilver, alabaster, guano, fertilizing marls, saltpetre, marbles, porphyries and

* "Those who only know the interior of the Spanish colonies from the vague and uncertain notions hitherto published, will have some difficulty in believing that the principal sources of the Mexican riches are by no means the mines, but agriculture. * * * The best cultivated fields of Mexico recall to the traveler the beautiful plains of France."—*Humboldt*, about 1802.

† "There hardly exists a plant on the face of the globe which is not capable of being cultivated in some part of New Spain [Mexico]."—*Humboldt*, 1802.

rare varieties of building and precious stones abound from Monterey to Colima in endless but undeveloped stores.

Within this year the engineers of the Company, while locating routes, have discovered valuable and excellent bodies of coal and iron ore on the lines of the railway. Large beds of coal have been opened near Laredo, and others on the Manzanillo line. Excellent coal abounds in the State of Michoacan, in the neighborhood of the road. The economic value to the enterprise of these rich deposits, so advantageously placed and so opportunely found, can hardly be overestimated.

WORK DONE.

The Mexican National Railway is built in pursuance of a decree of the Congress of the Republic of Mexico, generally known as the "Palmer-Sullivan Concession," executed on or about the 13th day of September, 1880, for the construction in Mexico of the following lines of railroad, with corresponding telegraphs, namely :

I. "From Mexico City to the Pacific Ocean at the port of Manzanillo, or between that port and Navidad, passing through Toluca, Maravatio, Acambaro, Morelia, Zamora, La Piedad, and thence to the Pacific, following the line that may prove most favorable for the mutual interests of the Company and of the nation."

II. "From Mexico to the northern frontier, this line taking its departure from that to the Pacific, at a point between Maravatio and Morelia, and passing through the cities of San Luis Potosi, Saltillo and Monterey, arriving at the northern frontier at Laredo, or between that point and Eagle Pass."

III. Other lines since added by additional concessions :

From Matamoras to Monterey via Mier.

From Zacatecas to San Luis Potosi, and from Zacatecas to Lagos, making in all a system of over 2,000 miles.

The work of actual construction began in the fall of 1880, and has since been pushed with vigor and energy.

Twenty-five parties of engineers are now in the field, in Mexico, at work on the several sections in progress and locating new lines.

At Laredo connection will be made with the Gulf Coast of the United States by means of the Texas Mexican Railway, one hundred and thirty miles of which are now completed westward from Corpus Christi, and the remaining fifty miles to Laredo will be finished in June.

Another line is building down from San Antonio, and expects to reach Laredo this autumn. This will put The Mexican National Railway in direct communication at Laredo with the railway system of the United States.

Within the Republic of Mexico the work of actual construction is now going on as follows :

From Laredo southward toward Monterey ; from Zacatecas south-eastward toward San Luis Potosi ; from Manzanillo eastward toward the City of Mexico ; from the City of Mexico on the main line north and west to Morelia and San Luis Potosi.

On the main trunk line the work is being pushed simultaneously in three sections :

- (a.) 1st. Section from City of Mexico to Toluca ;
- (b.) 2d. Section from Toluca to Acambaro, Celaya and Salamanca.
- (c.) 3d. Section from Acambaro to Morelia and Patzcuaro.

Thousands of laborers are at work on these three sections. These men, native Mexicans, receive three reals (about $37\frac{1}{2}$ cents or two francs) per day, and do fair service. Sixty-five thousand tons of steel rails have been contracted for and part of them already delivered in the City of Mexico. Two hundred locomotive engines and four thousand freight cars are also ordered, and some of them delivered.

It is proposed to complete the line from Laredo to Monterey by the close of this year, and from Monterey to San Luis Potosi by the close of next year, at which time it will meet the line from the City of Mexico which is intended to be laid northward to San Luis Potosi by that time.

There is no doubt the entire lines of the road, westward to the Pacific and northward to the United States, forming together a really national Mexican system of railway, will be completed long within the limits fixed by the concession. Working from half a dozen directions, with wages at about one-fifth of what is paid in the United States (Western Territories), and in a country where there is no winter and no snow, work can be pushed with marvelous rapidity, once a full organization is effected and the forces on the field.

THE MEXICAN NATIONAL RAILWAY BONDS.

To aid in the construction of the roads above mentioned, aggregating something over 2,000 miles, The Mexican National Railway Company have authorized an issue of their first mortgage bonds.

These bonds are all of the denomination of \$1,000; bear date the first day of April, 1881, and interest at the rate of six per cent. per annum, payable semi-annually on the first days of October and April in each year; payable, principal and interest, in United States gold coin, at the company's office in New York.

They are issued under a First Mortgage or Trust Deed of the Railway Company on its lines, and property appurtenant thereto, at the rate of not exceeding \$20,000 per mile, with the right in the trustees to authorize, after completion of any division, a further issue thereupon, for betterments, improvements, equipment, or other necessary or beneficial objects, at their discretion, of not exceeding 5,000 per mile of completed road.

About \$10,000,000 of these bonds have already been disposed of.

Under the trust above quoted the issue of bonds cannot exceed \$25,000 per mile, at which rate the interest which the road must earn to meet its annual bonded charges would be \$1,250 per mile.

This is a moderate amount compared with the average income earning capacity per mile of the railroads of the United States.

In 1879 the entire railroad mileage of the United States was 84,233 miles and the net earnings \$219,916,724, showing a net earning per mile of \$2,610.

If The Mexican National Railway does as well as the average of the railways of the United States it will not only earn enough to meet promptly the interest on its bonds, but \$1.360 per mile besides for dividends on stocks.

The net earnings of the Denver & Rio Grande Railway for 1880, on an average mileage operated during the year of 460 miles, were \$1,710,461.80, being a net earning per mile of \$3,718.

Should The Mexican National Railway do as well as this road at the other and uninhabited end of the plateau, it will not only meet its bonded interest, but yield a surplus of \$2,468 per mile to apply to dividends on its stock—a sum almost double the highest interest charge allowable under the deed of trust. But during the last six months of 1880, the earnings of this road were \$1,213,693.85, on an average mileage operated of 535 miles, being a net annual earning per mile of \$4,537.16—a still stronger showing.

But another illustration may still be found in a wider comparison.

The entire railroad mileage for 1879 of the Pacific States (mining, but comparatively sparsely settled communities) and of the Pacific railways leading to them across the plains, was 5,129 miles; the net earnings of these roads for the same year were \$20,278,400, showing a net earning per mile of \$3,953.

Should the Mexican National Railway do as well as these new roads to the north of it, it would earn, after meeting its interest charges, \$2,703 per mile for dividends.

MINING AND RAILWAYS.

These figures prove what desirable fields mining territories are for railway investment or operation. There is, indeed, no occupation which, for the numbers engaged, induces more transportation, a familiar fact to railway projectors and managers.

California, Nevada, Utah and Arizona are territories almost exclusively devoted to mining; but none of them, nor all of them together, equal Mexico in the promise of her mineral wealth.

They are, however, almost devoid of any population, save those classes engaged in mining. Mexico has its experienced and laborious mining population, and in addition whole classes engaged in industrial, commercial and agricultural occupations.

The entire population of these Pacific States, quoted above, is as follows:

Arizona,	40,441
California,	864,686
Nevada,	62,265
Oregon,	174,767
Utah,	143,906
Washington,	75,120
Total,	1,361,185

Assuming that every man, woman and child in these States is employed in mining, there could be in Mexico an equal number engaged in this kind of labor, and eight and one-half millions left over for other and diversified industries.

It is this distribution of diverse industries and distinct classes of population interdependent on each other, which makes a desirable railway field. A railroad earns money just in proportion as one part of its line lacks that which other parts can supply. This is wonderfully the situation of Mexico. Her miners in the rocky ranges must be fed from

her wheat fields and fertile valleys ; they must be clad from her city centres ; and they must draw their mills, machinery and tools from the United States ; sending back in exchange to the lowlands and foreign countries ore, matt, bullion. Her population in the temperate zone of her upland plateaus must draw their tropical supplies and luxuries—sugar, coffee, cotton, rice, olives, fruits, spices—from the *tierras calientes* of the coast, returning for them to their fellow citizens on the coast, the special products of the higher lands.

THE MARKET OF MEXICO.

Mexico occupies a unique position among existing nations, in having at her very doors a great market that can consume all she can produce, and that is just opening to her.

Leaving out of view the internal business of a railway in Mexico, the inter-state trade and travel, the wholesale exchange of commodities between the upland and lowland regions, each of which lacks what the other has—leaving out also the great through trade between Europe and Asia—let us consider for a moment what a national railway system can gather up and carry out of Mexico into the United States, without change of cars or breaking of packages.

The following table shows the imports into the United States for the fiscal year ending June 30th, 1880, of some of the staple productions of Mexico.

These imports came from all over the world ; but as Mexico is our nearest neighbor—with continuous rail communication from her capital to New York, and all our main centres ; with perhaps even a customs union in time—she will be our natural market to buy in.

Sugar,	lbs.,	1,731,405,439	value, \$74,717,935
Coffee,	"	446,850,727	" 60,360,769
Crude india rubber and gutta-percha,	"	16,826,099	" 9,606,239
Molasses,	galls.	38,008,930	" 8,705,243
Tobacco,	lbs.	10,411,757	" 7,315,898
Indigo,	"	2,625,240	" 2,752,900
Gums,	"	17,842,086	" 2,444,302
Rice,	"	51,943,609	" 1,316,132
Cocoa,	"	7,403,643	" 1,306,239
Cochineal,	"	1,364,285	" 890,168

Total value of ten articles.

\$169,415,825

To these add bullion, matt, hides, hemp, olives, oils, grasses, drugs, dyes, barks, chemicals, sulphur, fine woods and many smaller articles.

All these we are consuming now in the immense quantities given above, and all these Mexico can supply. We are her nearest consumer, her power of production is equal to our demand, and once a continuous railway is running from the City of Mexico to St. Louis, all that, and much more, will flow out of Mexico into our borders; and the returning trains will carry back mining machinery and implements of all kinds, wagons and carriages from the great prairie manufactories, plows, shovels, axes, nails, cooking stoves, grates, ranges, general hardware, fine cutlery, mills for sugar, cotton and wool factories, brick-making machines, household utensils, watches, clocks, boots and shoes, ready-made clothing, glass-ware, tools of all kinds, our vast range of agricultural machines, bar iron, rails, steel, fire-arms, furniture, pipe, ordnance stores, organs, melodeons, sewing machines, blooded breeds of horses and cattle, books, paper and stationery, wire fencing, tubing, petroleum, spirits, hams, tallow, dried fish, oysters and fruits of the North, manufactured woolen, cotton and leather goods, printing presses, ink, type, scientific instruments, harness, gas fixtures, telephones, and the thousands of inventions and manufactures of smaller articles which make up the comfort and luxury of our own substantial life.

MEXICO'S NATIVE CAPACITY—HER WILL.

The power of Mexico to produce all we can consume is unquestioned. A fresh, young, undeveloped land like our own, her resources are practically exhaustless and limitless as ours.

The fruitfulness of the only half-tilled tropical soils of Mexico is something unknown to us who dwell in northern climates, and almost beyond the range of our colder imaginations.

Coffee in the southern part of Mexico grows wild. The natives do not even gather in this free crop. They cannot export it chiefly for want of roads, and for their own use they prefer chocolate. The export to the United States has increased three-fold in seven years, without any stimulus from the exterior.

Corn (maize) in Mexico yields two crops a year; each crop sixty bushels to the acre. The average yield in all the United States is twelve bushels to the acre; in the fresh Western territories, twenty-four to thirty-five bushels.

Rice.—"One single sowing of rice will yield successively two large

crops without the slightest additional labor."—*Barnard & Williams' Survey*, p. 187. The general rule of plantation farming in the *tierras calientes* for nearly all crops, is one a year from the natural rains—two or more if you irrigate.

"*Sugar cane* requires but *one* year for maturing the first crop, after which two crops can be obtained in fifteen months. The cane once started, will continue to yield twenty years prolifically without replanting."—*U. S. Consul Hoyt*.

Farm labor costs almost nothing—little beyond the keep of the laborer—say about twenty to thirty cents a day.

The soil of Mexico, cultivated for unknown ages—for the Aztecs were as thorough farmers as we, and the country, five hundred years ago, supported a larger population than it has now—requires no manuring. The volcanic ridges of the hills are stored with potashes and other rich chemical substances, and the continuous gentle rains wash these down into the valleys. Irrigation performs the same service, as the streams from which the *acequias* are led take their rise in the mountains. In either case the replenishing of the soil is automatic, and costs nothing.

Water-power.—To work up her raw material, Mexico has abundant water-power with which to drive factories, mills and forges. The very reasons which close the streams to navigation—sharp descents and rapid flow—give them the force and limpid purity so desirable in manufacturing water-power. These streams start in the mountain peaks forever wrapped in clouds—hence an unfailing source and a uniform flow. They run under warm suns the year round. Hence there is no freezing, as is sometimes the case in New England and Minnesota.

BUT WILL THE MEXICANS WORK?

Sixteen thousand of them are now hard at work on The Mexican National Railway line, grading, digging, blasting, hauling, at 37 cents a day.

This fact should be a conclusive answer to the question; but the delusion is so very general that the Mexican is incorrigibly lazy, endowed only with the energies of idleness, that it is worth looking into this matter a moment.

The average Mexican does not work now, because he can get no results out of his labor. His generous soil yields support for the individual with little exertion, and why should he toil for anything beyond his own food, when for want of roads he can do nothing with a surplus? Why should the owner of a rich *hacienda* stack his estates with hogsheads

of sugar or bags of coffee, when, by reason of a primitive and costly system of transportation, he cannot get them out of his own country? Why gather the wild coffee or the tropical bananas, when neither would be of any value to the planter beyond what he could consume on his own plantation?

As a matter of fact, the Mexican works well enough when there is any reason why he should work at all, or any solid remuneration for labor. There are numerous cotton factories now in Mexico, and American machinery of all kinds is going rapidly into the Republic on the strength of the approach of the railways. Products are, in fact, even now massed and stored up, awaiting the opening of the roads. There are twelve iron works in the City of Mexico, and forty reduction works in the little State of Mexico. Leon, a town of 150,000 inhabitants, is the Manchester of Mexico—the whole population busy at manufacturing, only they work mostly with their hands, and not with steam and machinery as we do.

The Aztecs, by universal testimony, were a hard-working, thrifty, economical people. Three-fourths of the present population are of Aztec descent. The non-Aztec or modern civilization of Mexico is a Spanish one, and thus comes in this respect under the head of the Latin family of nations. The Latin people are very industrious, although, as their industry is not of the same form and appearance as ours, we do not appreciate it. The Latins are not as restless, or "enterprising," as we put it, as our northern races; but they are far more patient and laborious. They do not dare the seas and foreign lands to find a theatre for the exercise of their energies and ambition, but exhaust far more closely than we all the possibilities of their own field. France is the land of small economies and steady labor. There is not a more industrious class of its population in all New York than the Italians. Yet the popular prejudice and misinformation of the country religiously believes all Frenchmen to be frivolous, trifling and extravagant, and all Italians to be vagabonds. The popular estimate of the Mexican character is no nearer the truth.

In point of fact, the Mexican is patient, docile, laborious, industrious. He will work when there is any work to do that is paid for, and will rise with his opportunities.

MEXICO AS A NATION.

Similarly much misconception exists as to the character and standing of Mexico as a nation. Fixed and traditional error assumes her to

be hopelessly impoverished and bankrupt—"a people out of whom no good can come."

As a matter of fact, comparative statistics show that to-day, under all her disadvantages and want of development, she stands very respectably in the family of nations.

We speak here purely in figures compiled from the official census and financial statement of each country.

The national debt of Mexico, distributed in proportion to her population who must pay it, is \$42.63 per head; of the United States \$52.56; of France, \$127.53; of Italy, \$71.94; of Great Britain, \$114.62.

The population of Mexico, as distributed over the soil, is 12.18 persons to the square mile. (This is calculated on a population of but nine and one-fourth millions.) The population of the entire United States is 13.91 to the square mile; of Norway 14.78; of Sweden 25.90. She is therefore, for a new country, very fairly settled, and the districts of her densest population are those through which the Mexican National Railway runs.

Her combined exports and imports for the last attainable year were \$60,700,000, just about equal again to those of Norway, \$61,000,000; or to those of Japan, \$60,872,000; or of Portugal, \$64,500,000; and nearly one-half of those of her mother country, Spain, \$142,000,000; or of hardy and industrious Sweden, \$148,400,000.

Her annual revenue, inefficiently collected, was, by the latest return, \$17,811,125. Some statisticians say it averages for the last decade about \$19,000,000. The latest returned annual revenue of Denmark was \$11,900,000; of Switzerland, \$9,100,000; of Norway, \$14,364,000—all under that of Mexico. The revenue of Portugal was \$33,000,000, only twice that of Mexico. But this revenue is already increasing rapidly, as the nation feels the vivifying glow of the advancing railways. The customs duties at the port of Vera Cruz, for instance, for February, 1881, were three times as large as those for February, 1880.

But these figures, it must be borne in mind, tell the story of a land without railways. Up to this year there has been less than 400 miles of railway in all Mexico. These exports were made without any railroads to gather up and carry out the products of the country; and these imports were procured without any railway system to bring them in or distribute them. The land stood isolated and apart from the rest of the continent, everywhere else bound together and veined by the iron rail.

These revenues were collected over a vast territory, where, for want of

ready and systematic communication, the hand of the Government is weak and often powerless.

HOW RAILWAYS BUILD UP A STATE.

It is the evidence of fact that railways not only increase business largely and immediately, by supplying readily and cheaply the wants of the existing population ; but they multiply population, and population in turn creates business.

The practical demonstration of this within twenty years in the history of the western territories of the United States—territories which in large part are not essentially different from much of Mexico, of which some of them, like California and Colorado, were once a part—is something marvelous.

The following States and territories of the United States—Kansas, Minnesota, Nebraska, Colorado, Dakota and Utah—were in 1860 young communities, without railways and without much population ; and what population there was cut off from communication with the world for want of iron roads—the modern highway.

We prepare from the census and *Poor's Railroad Manual* two tables which, read side by side, show the direct and immediate influence of the railway in creating population under the conditions of our time and continent.

Population.

	1860.	1870.	1880.
Kansas,	107,206	364,399	995,966
Minnesota,	172,023	439,706	780,806
Nebraska,	28,841	122,993	452,433
Colorado,	34,277	39,864	194,649
Dakota,	4,837	14,181	135,180
Utah,	40,273	86,786	143,906
Total,	387,457	1,067,929	2,702,940

The population advances in direct ratio with the increase in railway mileage. In 1860, the year of the first census quoted, there was probably not a mile of railway in any of these States ; but for want of abso-

lutely authentic figures at hand, covering that year, we begin with 1864.

Miles of railway built.

	1864.	1870.	1879.
Kansas,	40	1,501	3,103
Minnesota,	157	1,092	3,008
Nebraska,	0	705	1,634
Colorado,	0	157	1,208
Dakota,	0	65	400
Utah,	0	257	593
Total,	197	5,755	9,946

It may be urged that this great increase of population and wealth is owing to immigration, which Mexico will not receive. Partly this is so ; but while Mexico will perhaps never receive a large northern immigration such as builds up our States, she is directly in the line of the emigration from Latin or Southern Europe, which is just beginning to come over. All migration of peoples follows certain lines or zones. The people of one clime or race emigrate exactly on the line of climatic and other conditions which suit their race and have produced it. Mexico is pre-eminently the land for the Italian, French, Portuguese and Spanish emigration, and will get it, when she is open and can offer equal inducements with ourselves.

But even without any direct increase of population, the building of railways always increases and produces business. Satisfying existing wants creates new ones—comfort secured, luxury follows. If this is so in an ordinary country, what will it be in a country like Mexico, with millions of people and accumulated wealth, suddenly opened to all the complex wants and comforts and luxuries of modern civilization ?

PLEASURE TRAVEL.

The moment the first Pacific line was opened to San Francisco it became a great highway of pleasure travel, although there was nothing to see save the natural beauties of an unopened country, and to see them one had to brave the discomforts and perils of an unsettled frontier. The tourist and pleasure travel through Mexico should be equally immediate and much greater.

The distance from New York to Manzanillo, via the City of Mexico, is less than that from New York to San Francisco; and the line is over an equally varied scene of plain and prairie and mountain grandeur.

But Mexico, in her historic associations and traditions, her ruins, her foreign races, customs and language, has infinite attractions over California as an objective point of pleasure travel. She is the Egypt of the New World; full of strange monuments, whose origin is lost in the shades of antiquity; while her picturesque towns of to-day, with their foreign costumes and bright colors and soft sunshine; with their plashing fountains, their marble *plazas*, their old cathedrals and curious churches, their airy corridors and spacious streets and public squares, fragrant with groves of palm and roses and blushing oleanders, recall the pleasantest scenes of Southern Europe. When Mexico can be entered by rail, it will be the first time that a real field for pleasure and tourist travel has been opened on this continent.

And in addition to its direct attractions, it is but fair to assume that this line will divide the combined travel of the through Pacific lines of the United States. The persons who go overland to San Francisco, by the Union Pacific or Texas Pacific roads, would naturally prefer to return by another route, and they will choose that one which offers as special attractions a different people, a different civilization, new customs, language, habits and manners, and a temperate climate of perpetual summer.

THE MEXICAN NATIONAL RAILWAY—ITS FOREIGN RELATIONS.

The future of the Mexican National Railway, however, has proportions beyond its inter-state commerce and its lucrative carrying trade between the two great republics of North America. When built, it becomes at once a most important link in the great through freight and travel lines of the world.

The City of Mexico lies directly on the established ocean highways between

New York and Yokohama,	Hong Kong,	Calcutta,	Melbourne,	Callao,
Liverpool	“ do. do. do. do. do.			
New Orleans	“ do. do. do. do. do.			
The Mediterranean ports	do. do. do. do. do.			

and is the focal and only point at which all these routes cross each other —“*el puente*.” The City of Mexico can be made a centre of direct ex-

change for the commerce of the world, without any of it leaving the direct track of its carriage.

North America lying across the path between all these points, obstructs water passage; forcing a lengthy and expensive *détour* around Cape Horn or the costly *portage* of the breadth of the continent.

Here the Mexican National Railway holds a singularly commanding position. Its Laredo or International line in distance and time from New York to Manzanillo will be something shorter than the present railway routes from New York to San Francisco. By its inter-oceanic line from Manzanillo via the City of Mexico to Vera Cruz or any other near Gulf port, it forms the most available transcontinental route that can ever be built. The problem of transcontinental transportation will be ultimately solved by that road which can carry freight across the continent from ship to ship, cheapest, fastest, with the greatest regularity, and with the least risk of detention or loss.

The transcontinental lines of the United States are all of vast length, involving costly tariffs on freights; and the northern ones are liable all winter to serious delay and blockades. The shorter lines via Tehuantepec and Panama balance their saving in cost of freight by their expense in the cost of life.

The line through the City of Mexico is the golden transcontinental mean. There is winter to the north of it—death to the south of it. It alone, of all the transcontinental lines, can be operated uniformly every day in the year, without danger to the traveler, death to the employee or loss to the shipper. This line is the east and west cross-bar of the Mexican National Railway system. From Vera Cruz to the City of Mexico the English section is already built and running, and the Mexican National Company have now under active construction some 260 miles westward of their section, and 70 eastward from Manzanillo.

Again, the Gulf of Mexico is a vast internal central sea, of almost the same water area as the Mediterranean; and holding to the New World much the same relation which the Mediterranean does to the Old. Through the great Mississippi, however, with its twenty-three tributary rivers, it has a greater command of the internal commerce of North America than the Mediterranean has of Europe. Singularly enough, these two great internal continental seas facing inward both have free outlets into the Atlantic, and both are closed by a bar of land to the Pacific. The Mexican National Railway is the Suez Canal of the New World—its short route to the Indies.

Daniel Webster, when our Minister of Foreign Affairs, saw clearly the advantageous natural relations of Mexico to the commercial nations

of the world, and in an official paper, so far back as 1851, speaking of an inter-oceanic railroad across her territory, wrote thus: "It gives her access to the markets of all nations, and makes her, in short, a central point for the commerce of modern times."

Briefly, the work of this great national enterprise for Mexico is this: It gives her command and control of herself, establishing firmly her political and commercial autonomy. It unites her, by a marriage of mutual interest, to the United States—the fellow Republic—which divides with her the continent. It brings into view and play her true relations to the commerce and trade routes of the world.

In fact, the Mexican National Railway lines now building are the crown and completion for Mexico of the comprehensive system of roads and public improvement projected and begun for her over three centuries ago by that foresighted statesman, Hernando Cortez.

47 WILLIAM STREET, NEW YORK,

June 1st, 1881.